



UNITED STATES PATENT AND TRADEMARK OFFICE

W
UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/627,914	07/28/2003	Kim Torben Walter	Q76732	3626
7590	03/24/2004		EXAMINER	
SUGHRUE, MION, ZINN, MACPEAK & SEAS, PLLC. 2100 Pennsylvania Avenue N.W. Washington, DC 20037-3213				FULLER, ERIC B
		ART UNIT	PAPER NUMBER	1762

DATE MAILED: 03/24/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)
	10/627,914	WALTER ET AL.
	Examiner Eric B Fuller	Art Unit 1762

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 28 July 2003.
- 2a) This action is **FINAL**. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1-9 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) Claim(s) _____ is/are allowed.
- 6) Claim(s) 1-9 is/are rejected.
- 7) Claim(s) _____ is/are objected to.
- 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) Notice of References Cited (PTO-892)
- 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 1.
- 4) Interview Summary (PTO-413)
Paper No(s)/Mail Date _____.
- 5) Notice of Informal Patent Application (PTO-152)
- 6) Other: _____.

DETAILED ACTION***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-4 and 6-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lippert (US 3,386,182) in view of Brown (US 4,080,927).

Lippert teaches a process of wetting powder with a liquid substance (column 3, lines 25-40). This liquid is supplied through annular ducts and is discharged into an atomizing stream (figure 5). It is the position of the examiner that this reads on producing an upward spray of coating fluid by means of a two-fluid nozzle. A perforated bottom plate is used to provide gas jets that are acentral and intersect the centerline of the spray (figure 1). As the powder spins in a circular motion around the bed, it is inherent that the powder would have an end-over-end movement as well. From the movement lines (6) of figure 1, it is shown that the jets guide the powder over the nozzle, thereby increasing the number of suspended bodies contacting the spray. The liquid is injected into a high velocity gas stream that breaks up the liquid (column 4, lines 1-5). This reads on providing an atomization gas to the two-fluid nozzle. A curved valve is used in the nozzle in order to reduce scattering effects (column 3, lines 49-65).

Art Unit: 1762

The reference fails to teach pneumatically muffling the atomization gas just above the nozzle in order to reduce the scattering effects.

However, Brown teaches a fluidized bed where a swirl effect is imparted to the sprayed fluid by radially offsetting it in order to increase uniformity of circulation (column 6, lines 35-65). One skilled in the art would recognize that by radially offsetting the perforations closest to the two-fluid nozzle in Lippert, the spray just above the nozzle would have the swirling effect that is taught desirable by Brown. Therefore, it would have been obvious at the time the invention was made to a person having ordinary skill in the art to radially offset the perforations closest to the nozzle in the process taught by Lippert. By doing so, scattering effects are reduced. This radially offset gas stream reads on the muffling gas of the present invention, and therefore reads on claims 1-3.

As to claim 4, it would have further been obvious at the time the invention was made to a person having ordinary skill in the art that similar results would be achieved if the swirling effect were imparted by providing the radially offset gas though a mantel surrounding the two-fluid nozzle.

As to claims 6-8, Lippert fails to teach the number of bodies being wetted and the velocity of the gas being pumped through the perforations. However, the velocity of the gas would be dependent on the number of bodies and would affect the uniformity of the wetting. It would have been within the skill of one practicing in the art optimize these values in order to achieve maximum uniformity.

Art Unit: 1762

Claims 5 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lippert (US 3,386,182) in view of Brown (US 4,080,927), as applied to claim 1 above, and further in view of Inaoka et al. (US 5,688,843).

Lippert, in view of Brown, teaches the limitations of claim 1 above, fails to teach the maximum dimension of the powder particles. However, Inaoka teaches that "powders", as interpreted by those of ordinary skill in the art, may include particles with dimensions that are within the applicant's claimed range (column 29, lines 3-5). It would have been obvious at the time the invention was made to a person having ordinary skill in the art to use particles with dimensions taught by Inaoka in the process taught by Lippert, in view of Brown. By doing so, one would have a reasonable expectation of success, as Lippert teaches to use powders and Inaoka teaches particle dimensions that constitute being a powder.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Eric B Fuller whose telephone number is (571) 272-1420. The examiner can normally be reached on Mondays through Thursdays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Shrive P Beck, can be reached at (571) 272-1415. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 1762

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



EBF



SHIRLEY P. BECK
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 1700